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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/855,274	05/14/2001	C. Shane Evans	3382-55837	9164

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EXAMINER

LEWIS, DAVID LEE

ART UNIT PAPER NUMBER

2673

DATE MAILED: 02/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/855,274

Applicant(s)

EVANS ET AL.

Examiner

David L Lewis

Art Unit

2673

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 August 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) 22-26 and 30 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-22 and 27-29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 8/25/2005.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

Restriction to one of the following inventions is required under 35 U.S.C. 121:

I. Claims 1-21 and 27-29, drawn to Application Specific Peripheral Adapting, classified in class 710, subclass 72.

II. Claims 22-26 and 30, drawn to Peripheral Monitoring Status Updating, classified in class 710, subclass 19. The inventions are distinct, each from the other because of the following reasons:

a. Inventions Group I and Group II are related as combination and subcombination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because Group I teaches of key stroke interpretation or keymapping, considering semantics in contrast to Group II which teaches of enumerating and ranking input devices within an application. The subcombination has separate utility such as Peripheral Monitoring and Status updating of input devices, wherein the enumerating and ranking are distinct features not found in the independent claims of Group I.

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b. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

c. During a telephone conversation with Stephen A. Wight on 1/31/2005 a **provisional election was made without traverse to prosecute the invention of Group I, claims 1-21, and 27-29.** Affirmation of this election must be made by applicant in replying to this Office action. **Claims 22-26 and 30 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.**

d. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Claim Rejections - 35 U.S.C. § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in-

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or

(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

2. **Claims 1-21 and 27-29 are rejected under 35 U.S.C. 102(e) as being anticipated by Sim (5213880).**
3. **As in claim 1, Sim teaches of a system for mapping an input device's controls with an application, figures 2-4, comprising: a user input device having a plurality of controls, column 5 lines 9-15; an application that implements actions in response to activation of the controls of the user input device, column 4 lines 55-60, figure 4 item 366; and an API that receives calls from the application, column 6 lines 15-25, figure 4 item 430, bidirectional communication between (366 or 332) and 430, as controlled by gamepad 100, the API including a call that creates an association between actions in the application and the controls on the input device, column 6 lines 34-48, wherein creating the association comprises considering semantics related to the actions in the application, column 2 lines 1-10, column 5 lines 25-43, column 7 lines 35-40, wherein creating the association comprises considering semantics related to the actions in the application, column 2 lines 10-20, column 7 lines 18-41, column 8 lines 5-10. Sim teaches of a translator or input device manager, figure 4 item 368, an input device or driving game controller, figure 4 item 100, a key map or semantics mapping, figure 4 item 362, and an application module or application program, figure 4 item 366. Further Sim teaches of a keyset module or device mapper, figure 3 item 364 which creates the keymaps linking control semantics**

with applications. Once the translator module 368 and the keymap files 362 are stored in memory, the game pad 100 is able to control any application module 366 using the DirectInput interface 430. The DirectInput Interface is equivalent to the claimed application program interface. If the user selects an DVD application module, the keyset module 364 loads the keymap file 362 associated with the DVD player 332, activates the DVD player 332, and then the translator module 368 translates the user commands into commands recognized by the DVD player 332. The DVD keymap file is created and linked to the executable file of the DVD player drive 332 via the keyset module which makes the call to the DirectInput Interface that creates an association between actions in the application and the controls on the input device. **The semantics that are considered related to the actions in the application are contained in the keymap file 362.** A DVD player 332 may have a "Pause" functionality. The DVD player 332 expects to receive the command "Pause" in a certain protocol, such as a keyboard command such as Alt-P. The keymap file can map the button A to the keyboard command Alt-P, and therefore when the user presses the button A on the game controller, the translator will read the keymap linked to the application, and send the Alt-P command to the computer system 110 pausing the application. **Therefore the DirectInput Interface receives calls from the keyset module linked to an application when creating a keymap file for that application.**

4. **As in claim 27, Sim teaches of** method for mapping an input device's controls with an application in a system, **column 6 lines 30-45**, comprising: in response to a request from an application program to create an action-to-control mapping, reading stored user preferences for the action-to-control mapping and reading a stored default file that includes manufacture provided defaults for the action-to-control mapping, **column 6 line 35-60, column 7 lines 39-41, 50-67, column 8 lines 1-17**; reading a structure that includes action values and action semantics associated with the action values, the action values being defined by the application, **column 7 line 50-67, column 8 lines 1-17**, and using the stored user preferences and the stored default file to create an association between the action values associated with the application and the controls on the input device, **column 7 line 50-67, column 8 lines 1-17, column 10 lines 1-25. Wherein the DVD game application allows programmable keymaps to be created and linked to the application in addition to the default keymaps stored on the DVD disk, wherein both user preference created keymaps and default keymaps operate in conjunction.** The Application communicates bidirectionally with the DirectInput Interface which inherently comprises calls or requests, wherein the application requests the DirectInput interface create client windows, screen controls, menus, dialog boxes, etc., that applications needs to accomplish its function. The Application may request that the DirectInput Interface update these objects in response to received messages, or in response to the changing output of the application. The Keyset Module 364 function will

request a list of keymap files to edit and has an option to create a new keymap file which links to other applications, reading on the limitation the requires a "request from an application program to create an action-to-control mapping, reading stored user preferences for the action-to-control mapping and reading a stored default file that includes manufacture provided defaults for the action-to-control mapping".

5. **As in claim 2, Sim teaches of**, wherein the application can override the association created by the API, column 6 lines 1-6, wherein mouse input can override the gamepad mouse input. **As in claim 3, Sim teaches of**, wherein an action is an application behavior resulting from a user's operation of a control, column 6 lines 17-20 and 34-50. **As in claim 4, Sim teaches of**, wherein creating the association further includes linking a control-semantic set to an action-semantic set by way of a genre, wherein the genre is a set of actions common to applications of a similar type, column 5 lines 40-44, column 7 lines 29-41, column 8 lines 5-10, wherein keymap files may be used to define commands for specific games, said games representing applications of a similar type. **As in claim 5, Sim teaches of**, wherein the API considers user preferences in creating the association, column 6 lines 34-65, column 7 lines 39-41. **As in claim 6, Sim teaches of**, wherein the API considers information provided from the device manufacturer in creating the association, column 3 lines 14-18, figure 3 item 362 and 370, wherein default keymaps are contained within

the disk, figure 3, figure 4 item 332 . **As in claim 7, Sim teaches of**, wherein the API considers similar applications that a user has configured to determine the association between an action and a given device control, column 5 lines 40-44. **As in claim 8, Sim teaches of**, wherein the API binds actions of the application to semantics in a genre by using a structure having an action value, column 5 lines 40-44, a predefined action semantic associated with the action value, and a label for the action, column 5 lines 40-44. **As in claim 9, Sim teaches of**, wherein the application passes a structure to the API that includes an action value and an action semantic associated with the action value, column 6 lines 5-34. **As in claim 10, Sim teaches of**, wherein the API returns to the application an enumeration of input devices connected to the system that match the actions of the application, column 5 lines 45-67, column 7 lines 1-30. **As in claim 11, Sim teaches of**, wherein in response to an application call, the API examines all input devices connected to the system and invokes an application-defined callback function to enumerate the connected devices that match the application actions, column 5 lines 45-67, column 7 lines 1-30. **As in claim 12, Sim teaches of**, wherein the application receives its own application codes as incoming input device data, figure 3 item 316. **As in claim 13, Sim teaches of**, wherein the API ranks input devices based on suitability of actions of the application, column 5 lines 45-67, column 7 lines 1-30. **As in claim 14, Sim teaches of**, further including an API call to display a default input device configuration, column 6 lines 34-62, column 8 lines 1-16. **As in claim 15, Sim**

teaches of, further including automatically obtaining system information about input devices connected in the system, retrieving custom settings provided by the user, and rendering the user interface for input devices using system information and custom settings, column 5 lines 45-67, column 7 lines 1-30. **As in claim 16, Sim teaches of** further including building an action map, column 5 lines 14-20, column 5 lines 45-67, column 7 lines 1-30. **As in claim 17, Sim teaches of** further including setting the action map after it is built, column 5 lines 45-67, column 7 lines 1-30. **As in claim 18, Sim teaches of**, wherein setting the action map includes mapping physical controller codes of the input device to physical application codes, column 5 lines 45-67, column 7 lines 1-30. **As in claim 19, Sim teaches of** wherein building an action map includes obtaining information about user preferences and hardware manufacturer defaults to create the association between actions and device controls, column 6 line 60, column 7 lines 39-41, 50-67, column 8 lines 1-17. **As in claim 20, Sim teaches of** wherein the application is a game application, column 1 lines 12-18. **As in claim 21, Sim teaches of** wherein the input device includes a mouse, keyboard, game controller, force feedback device, or combinations thereof, figure 4 items 403, 100, 401. **As in claim 28, Sim teaches of** wherein the creating includes creating a control to action map and further including setting the action map to allow the application to receive data from the input device, column 6 lines 13-48. **As in claim 29, Sim teaches of** further including, in response to a request from

the application, enumerating input devices attached to the system that are most suitable to the application, **column 5 lines 45-65, column 6 lines 1-30.**

Response to Arguments

6. The Applicant's arguments filed on 8/25/2004 have been considered but are **not persuasive**. Applicant argues 1) Sim fails to teach or suggest that the application calls an API to create an association between actions in the application and the controls on the input device. Applicant argues 2) Sim fails to teach or suggest a call received from the application by the API creates the association considering semantics related to the actions in the application. **The Examiner disagrees.** Sim teaches of a translator or input device manager, figure 4 item 368, an input device or driving game controller, figure 4 item 100, a key map or semantics mapping, figure 4 item 362, and an application module or application program, figure 4 item 366. Further Sim teaches of a keyset module or device mapper, figure 3 item 364 which creates the keymaps linking control semantics with applications. Once the translator module 368 and the keymap files 362 are stored in memory, the game pad 100 is able to control any application module 366 using the DirectInput interface 430. The DirectInput Interface is equivalent to the claimed application program interface. If the user selects an DVD application module, the keyset module 364 loads the keymap file 362 associated with the DVD player332, activates the DVD player332, and then

the translator module 368 translates the user commands into commands recognized by the DVD player 332. The DVD keymap file is created and linked to the executable file of the DVD player drive 332 via the keyset module which makes the call to the DirectInput Interface that creates an association between actions in the application and the controls on the input device. **The semantics that are considered related to the actions in the application are contained in the keymap file 362.** A DVD player 332 may have a "Pause" functionality. The DVD player 332 expects to receive the command "Pause" in a certain protocol, such as a keyboard command such as Alt-P. The keymap file can map the button A to the keyboard command Alt-P, and therefore when the user presses the button A on the game controller, the translator will read the keymap linked to the application, and send the Alt-P command to the computer system 110 pausing the application. **Therefore the DirectInput Interface receives calls from the keyset module linked to an application when creating a keymap file for that application.** Further, the Application communicates bidirectionally with the DirectInput Interface which inherently comprises calls or requests, wherein the application requests the DirectInput interface create client windows, screen controls, menus, dialog boxes, etc., that applications needs to accomplish its function. The Application may request that the DirectInput Interface update these objects in response to received messages, or in response to the changing output of the application. The Keyset Module 364 function will request a list of keymap files to edit and has an option to create a new keymap

file which links to other applications, reading on the limitation the requires a "request from an application program to create an action-to-control mapping, reading stored user preferences for the action-to-control mapping and reading a stored default file that includes manufacture provided defaults for the action-to-control mapping". The rejections in view of Chan et al. and McCauley have been withdrawn given Sim is the best art of record.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicants disclosure. 6643721, 6615299, 6081855.
8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a). A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **David L. Lewis** whose telephone number is **(703) 306-3026**. The examiner can normally be reached on MT and THF from 8 to 5. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bipin Shalwala, can be reached on (703) 305-4938. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-3900.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to:

(703) 872-9314 (for Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

February 1, 2005



BIPIN SHALWALA
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600